THE UNITED STRATES OF ANTERIOR

Hioneer Hi-Bred International, Inc.

Indicens, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT. OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE $\operatorname{PLANT}\operatorname{VARIETY}$

ECTION Act . (84 stat. 1542, as amended, 7 u.s.c. 2321 et seq.)

CORN, FIELD

'PH6KW'

Plant Varioty Protoction Office Agricultural Marketing Servic

APPENDIX 1

| REPRODUCE LOCALLY. Include form number and date on all reproductions. FORM APPROVED - OMB NO. 0581-0055 | | | | | |
|--|--|---|--|--|--|
| U.S. DEPARTMENT OF AGRICULTU AGRICULTURAL MARKETING SERV SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIET | CE | The following statements are made 1974 (5 U.S.C. 552a) and the Paperwork Re | In accordance with the Privacy Act of duction Act (PRA) of 1995. | | |
| APPLICATION FOR PLANT VARIETY PROTI (Instructions and information collection burden | | Application is required in order to certificate is to be issued (7 U.S.C. until certificate is issued (7 U.S.C. 24 | determine if a plant variety protection 2421). Information is held confidential 26). | | |
| 1. NAME OF OWNER | | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER | 3. VARIETY NAME | | |
| Pioneer Hi-Bred Internation | | EVERTIMENTAL NUMBER | PH6KW | | |
| 4. ADDRESS (Street and No. or RFD No., City, State and Zip Code, a | nd Country) | 5. TELEPHONE (include area code) | FOR OFFICIAL USE ONLY | | |
| 7301 NW 62 nd Avenue | | 515/270-4051 | PVPO NUMBER | | |
| P.O. Box 85 | | ···· | - 200100253 | | |
| Johnston, IA 50131-0085 | | 6. FAX (include area code) | | | |
| | | 515/253-2125 | FILING DATE | | |
| 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership. | IF INCORPORATED, GIVE STATE OF INCORPORATION) | 9. DATE OF INCORPORATON | · . | | |
| association, etc.) | | March 5, 1999 | 8/8/2001 | | |
| COIPORATION 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE ST TO S | IOWA | | | | |
| 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO S | ERVE IN THIS APPLICATION (FIRST P | ERSON USTED WILL RECEIVE ALL PAPERS) | F FILING & EXAMINATION | | |
| Steven R. Anderson | | | E FEES: | | |
| Research and Product Dev | elopment | | s : 2,700 | | |
| P.O. Box 85 | - | | R DATE 5/3/CI | | |
| Johnston, IA 50131-0085 | | | C E CERTIFICATION FEE: | | |
| | | · | v : 432.00 | | |
| | | | D DATE 57/2/03 | | |
| 11. TELEPHONE (Include area code) 12. FAX (Include area of | | | 14. CROP KIND NAME (Common name) | | |
| 515/270-4051 515/253-3 | 2125 <u>Steven.</u> | Anderson@Pioneer.com | CORN | | |
| 15 GENUS AND SPECIES NAME OF CROP | 16. FAMILY NAME | (Bolanical) | 17. IS THE VARIETY A FIRST GENERATION | | |
| Zea Mays | Gramin | eae | HYBRID? | | |
| 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITT | O (Follow Instructions on reverse) | 19. DOES THE OWNER SPECIFY THAT S | EED OF THIS VARIETY BE SOLD AS A CLASS OF | | |
| a. Exhibit A. Origin and Breeding History of the Variety | , | CERTIFIED SEED? See Section 83(a) | of the Plant Variety Protection Act) | | |
| _ | | | | | |
| b. 🛛 Exhibit B. Statement of Distinctness | | YES (If "yes", answer items | 1 20 🔼 NO (If "no", go to item 22) | | |
| b. | | and 21 below) | | | |
| c. Exhibit C. Objective Description of the Variety d. Exhibit D. Additional Description of the Variety (Option | • | and 21 below) | EED OF THIS VARIETY BE LIMITED AS TO | | |
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INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed Exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be denoisited and maintained in a construction and the first produced varieties verification that a viable (in the sense variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in a approved public repository; (4) check drawn on a U.S. bank for \$2,450 (\$30 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be issued to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner not licensee or agent. amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

> Plant Variety Protection Office Telephone: (301)504-5518 FAX: (301)504-5291

Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM 18a.

Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;

the details of subsequent stages of selection and multiplication;

evidence of uniformity and stability; and

the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.

Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) Identify these varieties and state all differences objectively; 18b.

attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and

submit, if helpful, seed and plant specimens of photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

- 18c. Exhibit C forms are available from the PVPO for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant disease 18d. resistance, etc.
- 18e. Section 52(5) of the Act required applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is
- If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant may NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, applicant may change the choice. (See Regulations and Rules of Practice, Section 7.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.
- CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (Including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

11/01/2000, United States

CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).

NOTES; it is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant should check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center—East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to everage 30 minutes per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate of any other aspect of this collection of information, including suggestions for reducing his burden, to Department of Agriculture, Clearance Officer, CIRIM, AG Box 7830, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to CMS No. 0581-00055 and form number in your letter. Under the PPA of 1995, no persons are required to respond to a Geoletical or intermation unless it displays a valid CMB control number.

The U.S. Department of Agriculture (USCA) profibits discrimination in its programs on the basis of race, color, national origin, sax, religion, age, dissolilly, political befels, and marital or familial status. (Not all profibits) and programs, Persons with disabilities who require alternative means for communication of programs information (brails, large print, audiotape, etc.) should contact the USCA Office of Communications at (202) 720-2791. To file a complaint, white the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (volce) or (202) 720-1127 (TDO). USCA is an equal employment opportunity employer.

tion Office with WordPerfect 6.0a. Replaces STD-470 (03-95) which is obsolete. (See reverse for ins

Exhibit A. Origin and Breeding History

200100253

Pedigree: PH08A/PHND1)PXA12233X

Pioneer Line PH6KW, Zea mays L., a dent corn inbred, was developed by Pioneer Hi-Bred International, Inc. from the single cross hybrid PH08A (Certificate No. 9700215) X PHND1 (PVP Certificate No. 9600178) using the pedigree method of plant breeding. Varieties PH08A and PHND1 are proprietary inbred lines of Pioneer Hi-Bred International, Inc. Selfing was practiced from the above hybrid for 7 generations using pedigree selection. During line development, crosses were made to inbred testers for the purpose of estimating the line's combining ability. Yield trials were grown at York, Nebraska as well as other Pioneer research locations. After initial testing, additional hybrid combinations have been evaluated and subsequent generations of the line have been grown and hand-pollinated with observations again made for uniformity.

Variety PH6KW has shown uniformity and stability for all traits as described in Exhibit C - "Objective Description of Variety". It has been self-pollinated and ear-rowed 5 generations with careful attention paid to selection criteria and uniformity of plant type to assure genetic homozygousity and phenotypic stability. The line has been increased both by hand and in isolated fields with continued observations for uniformity and stability, and for 3 generations during the final stages of inbred development and seed multiplication. Very high standards for genetic purity have been established morphologically using field observations and electrophoretically using sound lab molecular marker methodology.

No variant traits have been observed or are expected in PH6KW.

The criteria used in the selection of PH6KW were yield, both per se and in hybrid combinations; late season plant health, grain quality, stalk lodging resistance, and kernel size, especially important in production. Other selection criteria include: ability to germinate in adverse conditions; number of tillers, especially important in production because having numerous tillers increases hybrid production costs spent on detasseling; disease and insect resistance; pollen yield and tassel size.

Exhibit A: Developmental history for PH6KW

| nibit A: Developmental history for PH6KW | _0 0 100 |
|--|------------------------------------|
| Season/Year Pedigree Grown | Inbreeding Level of Pedigree Grown |
| SEAS/YR: SUMMER/1994 PH08A, PHND1 | F0 |
| WINTER/1994 PH08A/PHND1 | F1 |
| SUMMER/1995 PH08A/PHND1)PX | F2 |
| SUMMER/1996 PH08A/PHND1)PXA1 | F3 |
| WINTER/1996 PH08A/PHND1)PXA12 | . F4 |
| SUMMER/1997 PH08A/PHND1)PXA122 | F5 |
| WINTER/1997 PH08A/PHND1)PXA1223 | F6 |
| SUMMER 1998 PH08A/PHND1)PXA12233 | F7 |
| Seed: | |

PH08A/PHND1)PXA12233X

*PH6KW was selfed and ear-rowed from F3 through F7 generation.

#Uniformity and stability were established from F6 through F8 generation and beyond when seed supplies were increased.

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Exhibit B. Novelty Statement

Variety PH6KW mostly resembles Pioneer Hi-Bred International, Inc. proprietary inbred line PHND1 (PVP Certificate No. 9600178). Data are compiled from three environments, two in the Johnston, IA area and one in the Ankeny, IA area. The data in Table 1A and 1B are from t-tests collected in 1999 and 2000.

Variety PH6KW has a taller plant height (236.3 cm vs 206.7 cm) than PHND1 (Table 1A, 1B).

Variety PH6KW has a lower tassel axis floret density (11.9 vs 15.8) than PHND1 (Table 1A, 1B).

Variety PH6KW has a narrower tassel branch angle (10.5 vs 36.9) than PHND1 (Table 1A, 1B).

Variety PH6KW has a longer tassel central spike length (28.8 cm vs 21.6 cm) than PHND1 (Table 1A, 1B).

Variety PH6KW has fewer primary tassel branches (6.4 vs 12.1) than PHND1 (Table 1A, 1B).

Exhibit B Novelty Statement Tables

Table 1A. Data from 1999 and 2000 are supporting evidence for differences between PH6KW and PHND1. A t-test was performed and broken out by year.

| TRAIT | year | variety-1 | variety- Count | - 1 - | 3 | Mean-1 | Mean-2 | Mean_S | stdDevla tion-1 | StdDevia tion-2 | Mean StdDevia StdDevia StdError-118 Diff iton-1 tion-2 | StdError-2 DF_Po | 1.000 | Value Pool | Prob_(2- tail)_Pooled |
|---|---------|------------|----------------|-------|------|--------|--------|--------|--------------------|-----------------|---|------------------|-------|------------|--------------------------|
| | | 1 | CIVIO | | 15 | 235.1 | 198.9 | 38.3 | 16.093 | 13.464 | 4.155 | 3.478 | 28 | 7.1 | 0.000 |
| plant height (cm) | 110000 | A 18 | PHIND | 3 4 | 2 42 | 237.5 | 216.6 | 20.9 | 11.686 | 8.201 | 3.017 | 2.118 | 28 | 5.7 | 0.000 |
| plant height (cm) tassel axis floret density (# | 1999 | | PHND1 | 12 | 12 | 11.8 | 16.5 | 7.4- | 1.656 | 1.846 | 0.428 | 0.477 | 28 | -7.4 | 0000 |
| of florets/4cm) tassel axis floret density (# | 2000 | 2000 PH6KW | PHND1 | 15 | 15 | 12.0 | 15.1 | -3.1 | 2.171 | 1.552 | 0.561 | 0.401 | 28 | -4.5 | 0.000 |
| of florets/4cm) | 1999 | 1999 PH6KW | PHND1 | 15 | 15 | 11.1 | 37.1 | -26.1 | 4.200 | 9.598 | 1.084 | 2.478 | 28 | 9.6- | 0.000 |
| (degrees) | 2000 PH | PH6KW | PHND1 | 15 | 15 | 9.9 | 36.7 | -26.9 | 3.044 | 11.683 | 0.786 | 3.017 | 28 | -8.6 | 0.000 |
| (degrees) | 1999 PH | PH6KW | PHND1 | 15 | 15 | 27.5 | 22.8 | 4.7 | 2.475 | 1.740 | 0.639 | 0.449 | 28 | 6.1 | 0.000 |
| (cm) tassel central spike length | 2000 PH | PH6KW | PHND1 | 15 | 15 | 30.1 | 20.3 | 9.7 | 2.712 | 2.820 | 0.700 | 0.728 | 28 | 9.6 | 0.000 |
| (cm) | 1999 PH | PH6KW | PHND1 | 15 | 15 | 6.7 | 12.1 | -5.5 | 3.086 | 2.532 | 0.797 | 0.654 | 28 | -5.3 | 0.000 |
| primary branches) | 2000 PH | PH6KW | PHND1 | 15 | 15 | 6.1 | 12.1 | -6.1 | 2.219 | 2.264 | 0.573 | 0.584 | 28 | 4.7- | 0.000 |
| primary branches) | | | | | | | | | | | | | | | |

Table 1B. Summary data across years are supporting evidence for differences between PH6KW and PHND1. A t-test was performed across years.

| TRAIT | variety-1 | variety-2 Count-1 Count-2 | Count-1 | | Wean-1 N | Mean-2 II | MeanS Diff | StdDevla Stion-1 | StdDevla tion-2 | StdError-1 | Mean-2 Mean StdDevia StdError-1 StdError-2 DF Po Diff tion-1 tion-2 Velocity Velocity | DF_Po oled \ | t- alue_Pool ed | Prob_(2- tall)_Pooled |
|---|-----------|---------------------------|---------|----|----------|-----------|---------------|------------------|--------------------|------------|--|-----------------|-----------------------|--------------------------|
| plant height (cm) | WX8HG | PHND1 | 30 | 30 | 236.3 | 206.7 | 29.6 | 13.872 | 14.855 | 2,533 | 2.712 | 28 | 8.0 | 0.000 |
| lassel axis floret density (# PH6KW of florets/4cm) | PH6KW | PHND1 | 30 | 30 | 11.9 | 15.8 | -3.9 | 1.900 | 1.821 | 0.347 | 0.332 | 28 | -8.2 | 0.000 |
| tassel branch angle (degrees) | РН6КW | PHND1 | 30 | 30 | 10.5 | 36.9 | -26.5 | 3.655 | 10.508 | 0.667 | 1.918 | 28 | -13.0 | 0.000 |
| tassel central spike length (cm) | PH6KW | PHND1 | 30 | 30 | 28.8 | 21.6 | 7.2 | 2.858 | 2.622 | 0.522 | 0.479 | 28 | 10.2 | 0.000 |
| tassel primary branch (# of PH6KW primary branches) | PH6KW | PHND1 | 30 | 30 | 6.4 | 12.1 | -5.8 | 2.659 | 2.360 | 0.485 | 0.431 | 28 | 6.8- | 0.000 |

2.0%

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DEFINITIONS

In the description and examples, a number of terms are used herein. In order to provide a clear and consistent understanding of the specification and claims, including the scope to be given such terms, the following definitions are provided:

ANT ROT = ANTHRACNOSE STALK ROT (Colletotrichum graminicola). A 1 to 9 visual rating indicating the resistance to Anthracnose Stalk Rot. A higher score indicates a higher resistance.

BAR PLT BARREN PLANTS.

The percent of plants per plot that were not barren (lack ears).

BRT STK BRITTLE STALKS.

> This is a measure of the stalk breakage near the time of pollination, and is an indication of whether a hybrid or inbred would snap or break near the time of flowering under severe winds. Data are presented as percentage of plants that did not snap.

YIELD (BUSHELS/ACRE). **BU ACR**

Yield of the grain at harvest in bushels per acre adjusted to 15.5%

CLD TST COLD TEST.

The percent of plants that germinate under cold test conditions.

CLN CORN LETHAL NECROSIS. Synergistic interaction of maize chlorotic mottle virus (MCMV) in combination with either maize dwarf mosaic virus (MDMV-A or MDMV-B) or wheat streak mosaic virus (WSMV). A 1 to 9 visual rating indicating the resistance to Corn Lethal Necrosis. A higher score indicates a higher resistance.

COM RST COMMON RUST (Puccinia sorghi). A 1 to 9 visual rating indicating the resistance to Common Rust. A higher score indicates a higher resistance.

DIPLODIA EAR MOLD SCORES (Diplodia maydis and Diplodia DIP ERS

A 1 to 9 visual rating indicating the resistance to Diplodia Ear Mold. A higher score indicates a higher resistance.

DRP EAR DROPPED EARS.

> A measure of the number of dropped ears per plot and represents the percentage of plants that did not drop ears prior to harvest.

EAR HT EAR HEIGHT.

> The ear height is a measure from the ground to the highest placed developed ear node attachment and is measured in cm.

EAR MLD GENERAL EAR MOLD.

> Visual rating (1-9 score) where a "1" is very susceptible and a "9" is very resistant. This is based on overall rating for ear mold of mature ears without determining the specific mold organism, and may not be predictive for a specific ear mold.

EAR SZ EAR SIZE.

A 1 to 9 visual rating of ear size. The higher the rating the larger the ear size.

EUROPEAN CORN BORER FIRST GENERATION LEAF FEEDING **ECB 1LF** (Ostrinia nubilalis).

A 1 to 9 visual rating indicating the resistance to preflowering leaf feeding by first generation European Corn Borer. A higher score indicates a higher resistance.

EUROPEAN CORN BORER SECOND GENERATION INCHES OF **ECB 2IT** TUNNELING (Ostrinia nubilalis).

Average inches of tunneling per plant in the stalk.

EUROPEAN CORN BORER SECOND GENERATION (Ostrinia nubilalis). **ECB 2SC**

A 1 to 9 visual rating indicating post flowering degree of stalk breakage and other evidence of feeding by European Corn Borer, Second Generation. A higher score indicates a higher resistance.

ECB DPE = EUROPEAN CORN BORER DROPPED EARS (Ostrinia nubilalis).

Dropped ears due to European Corn Borer. Percentage of plants that did not drop ears under second generation corn borer infestation.

EGRWTH = EARLY GROWTH.

This is the visual rating (1 to 9) of the amount of vegetative growth after emergence at the seedling stage (approximately five leaves). A higher score indicates better vigor or early season growth.

EST CNT = EARLY STAND COUNT.

This is a measure of the stand establishment in the spring and represents the number of plants that emerge on per plot basis for the inbred or hybrid.

EYE SPT = EYE SPOT (Kabatiella zeae or Aureobasidium zeae).

A 1 to 9 visual rating indicating the resistance to Eye Spot. A higher score indicates a higher resistance.

FUS ERS = FUSARIUM EAR ROT SCORE. (Fusarium moniliforme or Fusarium subglutinans).

A 1 to 9 visual rating indicating the resistance to Fusarium ear rot. A higher score indicates a higher resistance.

GDU = GROWING DEGREE UNITS.

Using the Barger Heat Unit Theory, which assumes that maize growth occurs in the temperature range 50°F - 86°F and that temperatures outside this range slow down growth; the maximum daily heat unit accumulation is 36 and the minimum daily heat unit accumulation is 0. The seasonal accumulation of GDU is a major factor in determining maturity zones.

GDU SHD = GDU TO SHED.

The number of growing degree units (GDUs) or heat units required for an inbred line or hybrid to have approximately 50 percent of the plants shedding pollen and is measured from the time of planting. Growing degree units are calculated by the Barger Method, where the heat units for a 24-hour period are:

GDU = (Max. Temp. + Min. temp.) - 50/2
The highest maximum temperature used is 86° F. and the lowest minimum temperature used is 50°F. For each inbred or hybrid it takes a certain number of GDUs to reach various stages of plant development.

GDU SLK = GDU TO SILK.

The number of growing degree units required for an inbred line or hybrid to have approximately 50 percent of the plants with silk emergence from time of planting. Growing degree units are calculated by the Barger Method as given in GDU SHD definition.

GIBERS = GIBBERELLA EAR ROT (PINK MOLD) (Gibberella zeae).

A 1 to 9 visual rating indicating the resistance to Gibberella Ear Rot. A higher score indicates a higher resistance.

GLF SPT = GRAY LEAF SPOT (Cercospora zeae-maydis).

A 1 to 9 visual rating indicating the resistance to Gray Leaf Spot. A higher score indicates a higher resistance.

GOS WLT = GOSS' WILT (Corynebacterium nebraskense).

A 1 to 9 visual rating indicating the resistance to Goss' Wilt. A higher score indicates a higher resistance.

GRN APP = GRAIN APPEARANCE.

This is a 1 to 9 rating for the general appearance of the shelled grain as it is harvested based on such factors as the color of harvested grain, any mold on the grain, and any cracked grain. High scores indicate good grain quality.

HC BLT = HELMINTHOSPORIUM CARBONUM LEAF BLIGHT (Helminthosporium carbonum).

A 1 to 9 visual rating indicating the resistance to Helminthosporium infection. A higher score indicates a higher resistance.

HD SMT = HEAD SMUT (Sphacelotheca reiliana).

This score indicates the percentage of plants not infected.

KER KG = KERNELS PER KILOGRAM.

The number of kernels per 1 kilogram of seed after discard is removed.

KSZ DCD = KERNEL SIZE DISCARD.

The percent of discard seed; calculated as the sum of discarded tip kernels and extra large kernels.

MDM CPX = MAIZE DWARF MOSAIC COMPLEX (MDMV = Maize Dwarf Mosaic

Virus and MCDV = Maize Chlorotic Dwarf Virus).
A 1 to 9 visual rating indicating the resistance to Maize Dwarf Mosaic Complex.

A higher score indicates a higher resistance.

MST = HARVEST MOISTURE.

The moisture is the actual percentage moisture of the grain at harvest.

NLF BLT = NORTHERN LEAF BLIGHT (Helminthosporium turcicum or Exserohilum turcicum).

A 1 to 9 visual rating indicating the resistance to Northern Leaf Blight. A higher score indicates a higher resistance.

PLT HT = PLANT HEIGHT.

This is a measure of the height of the plant from the ground to the tip of the tassel in cm.

POL SC = POLLEN SCORE.

A 1 to 9 visual rating indicating the amount of pollen shed. The higher the score the more pollen shed.

POL WT = POLLEN WEIGHT.

This is calculated by dry weight of tassels collected as shedding commences minus dry weight from similar tassels harvested after shedding is complete.

PRM = PREDICTED RELATIVE MATURITY.

This trait, predicted relative maturity, is based on the harvest moisture of the grain. The relative maturity rating is based on a known set of checks and utilizes standard linear regression analyses and is also referred to as the Comparative Relative Maturity Rating System that is similar to the Minnesota Relative Maturity Rating System.

PRM SHD = PREDICTED RELATIVE MATURITY GDU TO SHED.

A relative measure of the growing degree units (GDU) required to reach 50% pollen shed. Relative values are predicted values from the linear regression of observed GDU's on relative maturity of commercial checks.

RT LDG = ROOT LODGING.

Root lodging is the percentage of plants that do not root lodge; plants that lean from the vertical axis at an approximately 30° angle or greater would be counted as root lodged.

SCT GRN = SCATTER GRAIN.

A 1 to 9 visual rating indicating the amount of scatter grain (lack of pollination or kernel abortion) on the ear. The higher the score the less scatter grain.

= SELECTION INDEX.

The selection index gives a single measure of the hybrid's worth based on information for up to five traits. A maize breeder may utilize his or her own set of traits for the selection index. One of the traits that is almost always included is yield. When selection index data is presented, the tables represent the mean value averaged across testing stations.

SLF BLT = SOUTHERN LEAF BLIGHT (Helminthosporium maydis or Bipolaris maydis).

A 1 to 9 visual rating indicating the resistance to Southern Leaf Blight. A higher score indicates a higher resistance.

SOU RST = SOUTHERN RUST (Puccinia polysora).

A 1 to 9 visual rating indicating the resistance to Southern Rust. A higher score indicates a higher resistance.

STAGRN = STAYGREEN.

Staygreen is the measure of plant health near the time of black layer formation (physiological maturity). A high score indicates better late-season plant health.

STK CNT = NUMBER OF PLANTS.

This is the final stand or number of plants per plot.

SEL IND

YLD SC

STK LDG. = STALK LODGING.

This is the percentage of plants that did not stalk lodge (stalk breakage) as measured by either natural lodging or pushing the stalks and determining the percentage of plants that break below the ear.

STW WLT = STEWART'S WILT (Erwinia stewartii).

A 1 to 9 visual rating indicating the resistance to Stewart's Wilt. A higher score indicates a higher resistance.

TASBRN = TASSEL BRANCHES.

This is the number of primary tassel branches.

TAS SZ = TASSEL SIZE.

A 1 to 9 visual rating was used to indicate the relative size of the tassel. The higher the rating the larger the tassel.

TAS WT = TASSEL WEIGHT.

This is the average weight of a tassel (grams) just prior to pollen shed.

TEX EAR = EAR TEXTURE.

A 1 to 9 visual rating was used to indicate the relative hardness (smoothness of crown) of mature grain. A 1 would be very soft (extreme dent) while a 9 would be very hard (flinty or very smooth crown).

TILLERS.

A count of the number of tillers per plot that could possibly shed pollen was taken. Data are given as a percentage of tillers: number of tillers per plot divided by number of plants per plot.

TST WT = TEST WEIGHT (UNADJUSTED).

The measure of the weight of the grain in pounds for a given volume (bushel).

YIELD SCORE.

A 1 to 9 visual rating was used to give a relative rating for yield based on plot ear piles. The higher the rating the greater visual yield appearance.

United States Department of Agriculture, Agricultural Marketing Service Science Division, Plant Variety Protection Office National Agricultural Library Building, Room 500 Beltsville, MD 20705

Objective Description of Variety Corn (Zea mays L.)

| Name of Applicant Pioneer Hi-Br | (s) ed International, Inc. | Variety Seed Source | Varie | ety Name or Temporary Designation PH6KW |
|---|--|---|---------------------------|---|
| Address (Street & 1 | No., or RFD No., City, State, Zip Co | ie and Country | FOR OFFICIAL USE | |
| Johnston, Iow | | | PVP0 Number | |
| Leading zeroes if r Necessary for an a | te number that describes the varietal secessary. Completeness should be sedequate variety description and must (Use in conjunction with Munsell control of the conjunction with Munsell conjunction with Munsell control of the conjunction with Munsell conjunction with Munsell control of the conjunction with Munsell conjunction wit | striven for to establish an adequate v t be completed. | ariety description. Trait | Right justify whole numbers by adding s designated by an '*' are considered in Comments section): |
| 01=Light Green | 06=Pale Yellow | 11=Pink | 16=Pale Purple | 21=Buff |
| 02=Medium Green | 07=Yellow | 12=Light Red | 17=Pumple | 22=Tan |
| 03=Dark Green | 08=Yellow Orange | 13=Cherry Red | 18=Colorless | 23=Brown |
| 04=Very Dark Gree | 4=Very Dark Green 09=Salmon 14=Red | | 19=White | 24=Bronze |
| 05=Green-Yellow | 10=Pink-Orange | 15=Red & White | 20=White Capped | 25=Variegated (Describe) 26=Other (Describe) |
| STANDARD INBR | ED CHOICES | | | |
| (Use the most simil | ar (in background and maturity) of the | hese to make comparisons based on | grow-out trial data): | |
| Yellow Dent Famil | ies: | Yellow Dent (Unrelated) | Sweet (| Corn: |
| Family Membe | ers | Co109, ND246, | C13, I | owa5125, P39, 2132 |
| B14 CM10 | 5, A632, B64, B68 | Oh7, T232, | | |
| B37 B37, E | 376, H84 | W117, W153R, | Popcori | n: |
| B73 N192, | A679, B73, NC268 | W18BN | SG153 | 33, 4722, HP301, HP7211 |
| C103 Mo17, | Va102, Va35, A682 | | | • |
| Oh43 A619, | MS71, H99, Va26 | White Dent: | Pipecor | n: |
| WF9 W64A | , A554, A654, Pa91 | C166, H105, Ky228 | Mo15 | W, Mo16W, Mo24W |

| I. TYPE: (d | escribe Intermediate types in Comments section): | | | Stand | lard Variety | Name |
|-------------|--|------------------|-----------|--------------|--------------|------------|
| <u>2</u> 1 | =Sweet 2=Dent 3=Filint 4=Flour 5=Pop 6=Omamental | | | | <u>MO17</u> | |
| . REGION | WHERE DEVELOPED IN THE U.S.A.: | | | Stand | fard Seed | Source |
| <u>5</u> 1= | Northwest 2=Northcentral 3=Northeast 4=Southeast 5=S | outhcentral | | | PI 558532 | , |
| 6= | Southwest 7=Other Central Com Belt, NW,NC,SE,SW U. | . <u>S.</u> | | | | |
| B. MATUR | TY (In Region of Best Adaptability; show Heat Unit formula | in 'Comments' se | ection) | | | |
| | HEAT UNITS | | • | DAYS | HEAT UN | iTS |
| 078 | 1,520.0 From emergence to 50% of plants in silk | | | 076 | 1,458.3 | |
| 078 | 1,520.2 From emergence to 50% of plants in pollen | | | 075 | 1,418.8 | |
| 003 | 0,070.7 From 10% to 90% pollen shed | | | 003 | 0.075.8 | |
| | From 50% silk to optimum edible quality | | | | | |
| | From 50% silk to harvest at 25% moisture | • | | | | |
| 4. PLANT: | | Standard | Sample | | Standard | Sampl |
| | • | Deviation | Size | 1 | Deviation | Size |
| 236.3 | cm Plant Height (to tassel tip) | <u>09.65</u> | <u>06</u> | 213.7 | 08.73 | <u>06</u> |
| | cm Ear Height (to base of top ear node) | 06.59 | <u>06</u> | 080.8 | 08.66 | 06 |
| 015.7 | cm Length of Top Ear Internode | 01.06 | 06 | 014.8 | 01.88 | 06 |
| 0.0 | Average Number of Tillers | 00.00 | <u>06</u> | 0.0 | 00.01 | <u>06</u> |
| 1.1 | Average Number of Ears per Stalk | 00.12 | <u>06</u> | 0.7 | 00.31 | <u>06</u> |
| 2 | Anthocyanin of Brace Roots: 1=Absent 2=Faint 3=Modera | ate 4=Dark 5=Ve | ery Dark | 1 | | |
| 5. LEAF: | | Standard | Sample | | Standard | Sample |
| | | Deviation | Size | ļ | Deviation | Size |
| 11.1 | om Width of Ear Node Leaf | 00.33 | <u>06</u> | 10.6 | 00.51 | <u>06</u> |
| 79.2 | m Length of Ear Node Leaf | 01.12 | <u>06</u> | 71.0 | 03.33 | <u>06</u> |
| 05 | Number of leaves above top ear | 00.23 | <u>06</u> | <u>05</u> | <u>00.27</u> | <u>06</u> |
| | Degrees Leaf Angle (measure from 2nd leaf above ear at anthesis to stalk above leaf) | 04.58 | <u>06</u> | 24 | <u>05.50</u> | <u>06</u> |
| <u>03</u> | Leaf Color (Munsell code) 5GY34 | | | 03 | 5G | <u> </u> |
| | Leaf Sheath Pubescence (Rate on scale from 1=none to 9= | like peach fuzz) | | 1 | | • |
| _ | Marginal Waves (Rate on scale from 1=none to 9=many) | | | | | |
| | Longitudinal Creases (Rate on scale from 1=none to 9=man | y) | | | | |
| 6. TASSE | <u>:</u> | Standard | Sample | | Standard | |
| | | Deviation | Size | 1 | Deviation | |
| <u>06</u> | Number of Primary Lateral Branches | <u>01.95</u> | <u>06</u> | 06 | | <u>06</u> |
| | Branch Angle from Central Spike | <u>01.47</u> | <u>06</u> | 41 | | <u>06</u> |
| | om Tassel Length (from top leaf collar to tassel tip) | 02.28 | <u>06</u> | 58.4 | | <u>06</u> |
| _ | Pollen Shed (rate on scale from 0=male sterile to 9=heavy s | shed) | | 9 | =" | <u>L</u> |
| | Anther Color (Munsell code) 7.5Y8,58 | | | 01 | | 3Y88 |
| _ | Glume Color (Munseil code) 5GY54 | | | 01 | | <u>Y58</u> |
| 1 | Bar Glumes (Glume Bands): 1=Absent 2=Present | | | 1 | Ī | • |
| | | | | | | Data |

| 5145 |
|------|
| 14 |
| W |
| 03 |

| plication | Variety Data PH6KW | Page 2 | | | Standard Va | riety Data |
|--------------|--|--------------------|-----------------------------------|------------|--------------------------|------------|
| a. EAR (| Unhusked Data): | | | | | |
| <u>01</u> | Silk Color (3 days after emergence) (Munse | ll code) | • | 2.5GY88 | <u>01 2.</u> | GY86 |
| 03 | Fresh Husk Color (25 days after 50% silking |) (Munsell code) | | j 5GY56 | 02 5 | GY68 |
| <u>21</u> | Dry Husk Color (65 days after 50% silking) (| Munsell code) | | 5Y8.52 | 21 2.5 | Y8.54 |
| <u>2</u> | Position of Ear at Dry Husk Stage: 1= Uprigit | nt 2= Horizontal | 3= Pendant | | 1 | 1 |
| <u>6</u> | Husk Tightness (Rate of Scale from 1=very | loose to 9=very ti | ight) | | 5 | |
| 2 | Husk Extension (at harvest): 1=Short (ears | exposed) 2=Medi | um (<8 cm) | | 2 | |
| | 3=Long (8-10 cm beyond ear tip) 4=Very Lor | ng (>10 cm) | | | _ | |
| 7b. EAR | (Husked Ear Data): | | Standard | Sample | Standard | Samp |
| | | | Deviation | Size | Deviation | • |
| <u>17.7</u> | cm Ear Length | | 01.63 | <u>06</u> | 14.5 04.23 | <u>06</u> |
| <u>43.5</u> | mm Ear Diameter at mid-point | | 02.43 | <u>06</u> | 38.0 02.19 | <u>Q6</u> |
| <u>116.0</u> | gm Ear Weight | | 23.17 | <u>06</u> | <u>75.3</u> <u>35.30</u> | 06 |
| <u>15</u> | Number of Kernel Rows | | 01.63 | <u>Q6</u> | <u>11.3</u> 01.03 | <u>06</u> |
| 2 | Kernel Rows: 1=Indistinct 2=Distinct | | | | <u>2</u> | |
| <u>2</u> | Row Alignment: 1=Straight 2=Slightly Curve | d 3=Spiral | | | 1 | |
| 08.2 | cm Shank Length | | 00.41 | <u>06</u> | 07.8 03.4 | 3 06 |
| <u>2</u> | Ear Taper: 1=Slight 2= Average 3=Extreme | | | | 1 | |
| . KERNE | L (Dried) | | Standard | Sample | Standard | Samp |
| | | | Deviation | Size | Deviation | Size |
| 10.7 | mm Kernel Length | | <u>00.52</u> | <u>06</u> | 10.7 01.03 | <u>06</u> |
| 09.2 | mm Kernel Width | | 00.41 | <u>06</u> | 08.8 00.41 | <u>06</u> |
| <u>05.2</u> | mm Kernel Thickness | | 01.17 | <u>06</u> | <u>04.5</u> 00.55 | <u>06</u> |
| <u>70.3</u> | % Round Kernels (Shape Grade) | | 16.06 | <u>06</u> | 38,7 19.08 | 06 |
| 1 | Aleurone Color Pattern: 1-Homozygous 2=Se | egregating | | | 1 | |
| <u>07</u> | Aluerone Color (Munsell code) | | 1.2 | 5Y7/14 | <u>07</u> <u>10</u> | YR814 |
| | Hard Endosperm Color (Munsell code) | | 10 | YR712 | <u>07</u> <u>10</u> | YR714 |
| <u>03</u> | Endosperm Type: | | | , | 3 | , |
| ÷ | 1=Sweet (Su1) 2=Extra Sweet (sh2) 3=N 4=High Amylose Starch 5=Waxy Starch (7=High Lysine 8=Super Sweet (se) 9=High Lysine 8=Super Sweet (se) 9=High | 5=High Protein | | | | |
| 31.7 | gm Weight per 100 Kernels (unsized sample) | | <u>07.31</u> | <u>06</u> | 28.50 03.73 | <u>06</u> |
| . COB: | *** | | Standard | Sample | Standar | d Samp |
| | | | Deviation | Size | Deviation | |
| 27.3 | mm Cob Diameter at mid-point | | 01.63 | 06 | 22.8 02.93 | 06 |
| | | | T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T-T | 4.3. | | 22 |

Application Variety Data

Page 2

Standard Variety Data

| PH6KW | Application Variety Data | Page 3 | Standard Variety Data | |
|----------|--|---------------------|-----------------------|--|
| | RESISTANCE (Rate from 1 (mink if not tested; leave Race or Si | | | |
| A. Lea | f Blights, Wilts, and Local Infection | on Diseases | | |
| | Anthracnose Leaf Blight (Co | olletotrichum gram | ninicola) | |
| 5 | Common Rust (Puccinia so Common Smut (Ustilago m | rghi) | <u>6</u> | |
| | Eyespot (Kabatiella zeae) | | | |
| <u>6</u> | Goss's Wilt (Clavibacter mid Gray Leaf Spot (Cercosport Helminthosporium Leaf Spot | a zeae-maydis) | <u>5</u> | |
| 4 | · | • • | Race — 3 | |
| 3 | | • | Race —— 6 | |
| _ | Southern Rust (Puccinia po | | <u>-</u> | |
| 5 | Stewart's Wilt (Erwinia stew | rartii) | <u>6</u> | |
| | Other (Specify) —— | | | |
| B. Sys | temic Diseases | | | |
| | Com Lethal Necrosis (MCM | IV and MDMV) | | |
| <u>8</u> | Head Smut (Sphacelotheca | reiliana) | 9 | |
| | Maize Chlorotic Dwarf Virus | (MDV) | | |
| | Maize Chlorotic Mottle Virus | s (MCMV) | | |
| <u>3</u> | Maize Dwarf Mosaic Virus (| MDMV) | <u>3</u> | |
| | Sorghum Downy Mildew of | Com (Peronoscle | erospora sorghi) | |
| | Other (Specify) | | | |
| C. Stal | k Rots | | | |
| 5 | Anthracnose Stalk Rot (Coll | letotrichum gramii | nicola) <u>2</u> | |
| _ | Diplodia Stalk Rot (Stenoca | - | | |
| | Fusarium Stalk Rot (Fusario | | | |
| ٠. | Gibberella Stalk Rot (Gibbe | rella zeae) | | |
| | Other (Specify) | | | |
| D. Ear | and Kernel Rots | | | |
| | Aspergillus Ear and Kernel | Rot (Asperaillus fi | avus) | |
| 6 | , • | | 5 | |
| 6 | | | | |
| _ | Gibberella Ear Rot (Gibbere | - | · - | |
| | Other (Specify) —— | | | |

Application Variety Data

PH6KW

Application Variety Data

Page 4

Standard Variety Data

| Application Variety | Data | Page 4 | Standard Variety Date | 1 |
|----------------------------------|---|--|------------------------------|--------------|
| COMMENTS (eg. data was collected | state how heat units v . Continue in Exhibit | were calculated, standard inbred see D): | d source, and/or where | · |
| | 1 Isozymes | Q RFLP's | Q RAPD's | |
| 13. MOLECU | JLAR MARKERS: (0= | data unavailable; 1=data available b | ut not supplied; 2=data supp | lied): |
| 7.066.4 | Kg/ha Yield of Inbre | d Per Se (at 12-13% grain moisture) | 3,519.3 | ··· |
| <u>7.3</u> | | Lodging (at 65 days after anthesis) | <u>5.4</u> | |
| | % Pre-anthesis Roo | | | |
| | % Pre-anthesis Britt | le Snapping | | |
| 0.0 | % Dropped Ears (at | 65 days after anthesis) | <u>0.0</u> | |
| 5 | Staygreen (at 65 day on a scale from 1=w | ys after anthesis) (Rate orst to excellent) | 3 | |
| 12. AGRON | OMIC TRAITS: | | | |
| | Western Rootworm (Other (Specify) | (Diabrotica virgifrea virgifera) — | | - |
| | | Mite (Tetranychus urticae) | t | |
| | cm tunneled/plant | | | |
| | Statk Tunneling | | | |
| | Leaf Feeding | • | | |
| | | Borer (Diatreaea grandiosella) | | |
| | | (Diabrotica undecimpunctata) | | |
| | Northern Rootworm | | | |
| | mg larval wt. Maize Weevil (Sitoph | nikus zeamaize | | |
| | Silk Feeding | | | |
| | Leaf Feeding | | | |
| | Fall Armyworm (Spor | doptera truqiperda) | | |
| | cm tunneled/plant | | | |
| | Stalk Tunneling | | | |
| <u>5</u> | 2nd Generation (Ty | pically Leaf Sheath-Collar Feeding) | 3 | |
| <u>7</u> | 1st Generation (Ty | pically Whorl Leaf Feeding) | 4 | |
| | European Com Bore | r (Ostrinia nubilalis) | | |
| | Com Sap Beetle (Ca | | | |
| | Com Leaf Aphid (Rho | palosiphum maidis) | | |
| | Ear Damage | | | |
| | mg larval wt. | | | |
| | Leaf Feeding Silk Feeding | | | |
| • | Com Worm (Helicove | erpa zea) | | |
| | - | igonychus pratensis) | | |
| | | | | |
| | Danka amaa Mita (Ol | | | |

Please note the data presented in Exhibit C, "Objective Description of Variety," are collected primarily at Johnston and Ankeny, Iowa. The data in Exhibit B are from comparisons of inbreds grown in the same tests in the adapted growing area of PH6KW and in Johnston and Ankeny, IA. The data in Tables 1A and 1B are from paired comparison t-tests collected in Johnston and Ankeny, IA. These traits collectively show distinct differences between the two varieties.

There were 3 different planting dates planted each year for these trials. There are environmental factors that differ from year to year and planting date to planting date. Environmental temperature and precipitation differences during the vegetative and grain fill periods can impact plant and grain traits, and are a source of variability. The environmental conditions described above could result in larger standard deviations. The variation associated with year to year and environment to environment is normally higher than the variation associated within locations. I have enclosed a table that shows some of the temperature and precipitation differences between the years 1999 and 2000.

Exhibit D. Temperature and Precipitation differences from Ankeny, IA

TEMPERATURE

| YEAR | MAY | JUN | JULY | AUG | AVERAGE |
|------|------|------|-------|------|---------|
| 1994 | 59.8 | 70.7 | 71.9 | 69.0 | 67.9 |
| 1995 | 56.2 | 69.4 | 74.3 | 76.9 | 69.2 |
| 1996 | 56.2 | 69.3 | 71.3 | 70.5 | 66.8 |
| 1997 | 53.5 | 70.6 | 74.1 | 69.6 | 67.0 |
| 1998 | 64.7 | 66.6 | 74.8 | 73.5 | 69.9 |
| 1999 | 60.7 | 69.7 | .78.7 | 70.5 | 69.9 |
| 2000 | 63.5 | 68.9 | 73.2 | 74.2 | 70.0 |

RAINFALL

| YEAR | MAY | JUN | JULY | AUG | Total |
|------|------|-------|------|------|-------|
| 1994 | 3.67 | 5.75 | 1.71 | 4.18 | 15.31 |
| 1995 | 5.04 | 4.19 | 2.94 | 2.87 | 15.04 |
| 1996 | 8.47 | 4.35 | 2.51 | 2.14 | 17.47 |
| 1997 | 4.32 | 3.27 | 4.10 | 1.36 | 13.05 |
| 1998 | 6.46 | 11.07 | 5.70 | 4.96 | 28.19 |
| 1999 | 6.46 | 4.54 | 4.45 | 6.55 | 21.85 |
| 2000 | 5.40 | 5.80 | 3.16 | 1.78 | 16.14 |

| U.S. DEPARTMENT OF AGRICULTURE | | | |
|--|---|---|--|
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| EXHIBIT E | | | |
| STATEMENT OF THE BASIS OF OWNERSHIP | AUDICATION is movied : | | |
| | certificate is to be issued (7 U.S.C. 2421) until certificate is issued (7 U.S.C. 2426). | Information is held confidential | |
| 1. NAME OF APPLICANT(S) | | | |
| PIONEER HI-BRED INTERNATIONAL, INC. | 2. TEMPORARY DESIGNATION | 2. TEMPORARY DESIGNATION 3. VARIETY NAME OR EXPERIMENTAL NUMBER | |
| | OR EXPERIMENTAL NUMBER | - VANIETY NAME | |
| -y | | PH6KW | |
| 4 ADORESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) | 1 | | |
| | 5. TELEPHONE (include area code) | 6 FAV | |
| 7301 NW 62 nd AVENUE | i | FAX (include area code) | |
| P.O.BOX 85 | 515-270-4051 | 515-253-2125 | |
| JOHNSTON, IA 50131-0085 | 7. PVPO NUMBER | 1 233-2125 | |
| | O NOMBER | | |
| A. Constitution of the contract of the contrac | | | |
| Does the applicant own all rights to the variety? Mark an "X" in appropriate bid | ock If no place | | |
| | OCK. If no, please explain: YES | □NO | |
| | | | |
| | | | |
| | | | |
| | | | |
| 9. Is the applicant (individual or company) a U.S. national or U.S. based company | | | |
| # 00 citys name of account | ? ⊠ YES □ NO | | |
| M no, give name of country 10. is the applicant the original owner? | | | |
| - · · · · · · · · · · · · · · · · · · · | ease answer <u>one</u> of the following: | | |
| 8. If original rights to variety were owned by individual to | or the following: | | |
| If original rights to variety were owned by individual(s), is(are) the original YES T NO Week to the original rights to variety were owned by individual(s), is(are) the original rights. | al owner(s) a U.S. national(s)? | | |
| YES NO If no, give name of country | | | |
| | | | |
| b. If original rights to variety were owned by a company(les), is(are) the original VES INO If no other party is | | | |
| M YES The original of the price | ginal owner(s) a U.S. based company? | | |
| NO If no, give name of country | • | | |
| • | | | |
| Additional explanation on ownership (if needed, use reverse for extra space): | · · | | |
| PHSKW is owned by Pioneer Hi-Bred International, Inc. | | | |
| international, Inc. | | | |
| | | | |
| Service Control of the Control of th | | | |
| Median and an area of the second and a second a second and a second and a second and a second and a second an | | | |
| LASE NOTE: | | | |
| and the second s | | | |
| M variety protection can be afforded only to owners (not licensees) who meet one of the fo | | | |
| only to owners (not licensees) who meet one of the fi | ollowing criteria | | |
| Which age at the owner by the Original breaden at the | ot Relia. | | |
| actions similar protection to nationals of the U.S. for the same genus and species | national, national of a UPOV member country | OF Potional - 2 | |
| If the rights to the variety are owned by the company which employed the original breed country which affords similar protection to nationals. | i. | or national of a country | |
| Generally or owned by national of a country which affords similar protection to nationals of a policiant is an owner who is not the original ways. | ler(s), the company | | |
| which arrords similar protection to nationals | of the U.S. for the same garnin and and | by nationals of a UPOV member | |
| | | | |
| The applicant is an owner who is not the original owner, both the original owner and the applicant is an owner who is not the original owner, both the original owner and the applicant is an owner may be the individual or company who directed for the original owner and the applicant is an owner may be the individual or company who directed for the original owner and | ne applicant must meet one of the above criteria | | |
| The directed final breeding Co | Na remine 41/->m> a | | |
| riginal breeder/owner may be the individual or company who directed final breeding. Se | | a Act for definition. | |
| date collection is 6681-0055. The time required to covered to respond to a collection of information | On unione il diserte | | |
| collection is 0681-0055. The time required to compete this information collection is estimated to the second collection is offer the collection of the coll | average 10 minutes per response, including the | OMB control number for this | |
| The time repairment Reduction Act of 1995, no persons are required to respond to a collection of information and collection is deal reduction as deal reduction in the time required to compete this information collection is estimated to reduce the surface of the reduction of the | information. | Minning instructions, searching | |
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| (1/4/) (Destroy previous editions). Leavaion destroy previous editions). Leavaion destroy with the control of | | | |
| | | 10 | |